PROCEDURE OVERVIEW
Procedure Owner: Manager of Operations

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REVISION HISTORY

Version	Date	Author	Description

Distribution List:
Manager of Operations, Engineering
Vice President, Engineering
Director of Technical Support, Technical Support

PROCEDURE DIAGRAM

ROLES AND RESPONSIBILITIES

Operations Control Center
The *Operations Control Center* (*OCC*) provides first level monitoring of all SDLC.com production and Beta services. These responsibilities include monitoring the health of the web servers, databases, mail and chat facilities, content feeds and NaviSite provided services

System Engineering
System Engineering is responsible for identifying, building and improving site-monitoring tools. Tools are delivered following a formal turnover that includes source code, documentation, and training. *System Engineering* provides ongoing support to the *OCC*.

Operations Department Staff
Each individual in the *Operations Department* provides second tier monitoring of the production and beta environments.

Engineering Department Staff
Third tier monitoring of the production and beta environments is provided by staff in all other areas of the *Engineering Department*, outside *Operations*.

Technical Support
Technical Support is the primary point of contact for customers and partners. They provide first level, and sometimes second level, support to customers and partners.

Content
The *Product Department* area that makes changes site content. Site content is defined as inclusive of content, ad servicing and objects. The *Content* area executes and monitors site content changes and communicates changes to site content to *OCC* for site logging/tracking purposes.

ISPs/Partners
ISPs/Partners monitor their own site. They have a direct impact on own site as viewed by SDLC.com customers. Monitoring issues from *ISPs/Partners* enter SDLC.com through *Technical Support*.

Hosting
Hosting is the "ping, power and pipe" for SDLC.com. Their services cover applications, hardware, communications and the environment where the server farms are located. *Hosting* communicates directly with the OCC when issues arise.

Systems Engineering
Defining next generation monitoring – Need to be more involved in the use of tool they developed and used in day-to-day ops monitoring.

Hosting
NaviSite provides network monitoring and port mirroring sniffer monitoring of the production and beta servers. Issues or failures above the server threshold are reported to the *OCC*.

Release Engineering
The *OCC* turns off and on access to areas of the server farm for *Release Engineering* when a push is being executed. *OCC* coordinates with *Quality Assurance* to determine on how a push will impact the site. Also, **QUALITY FUNCTION** and **EMERGENCY PUSH PROCEDURES** provide the process that the *OCC, Release Engineering and Quality Assurance* follow prior to and immediately after an emergency push. The *OCC* may delay a release due to current traffic and/or active incident under problem management control.

Configuration Mgmt   This group needs to be created (un autometed and unaudited)

Technical Support   We respond to customer report site issues and damage control.

METRICS

- None identified at this time.

PROCEDURE ACTIVITIES

Site Monitoring
The *OCC* executes a number of activities to ensure that site health is maintained and/or issue identified as they emerge to maintain site presence and availability. These activities are spread across the spectrum of service delivery mechanisms that support the site. *OCC*'s first tier monitoring is augmented at all times by *Operations Staff*, second tier, and *Engineering Department Staff* in general, third tier, monitoring of the site.

Technical Support and the Content area of Product augment the OCC monitoring activities through the normal execution of their daily responsibilities.

The *OCC* monitors the following site services using the listed tools to measure the health of the site, and collaboration with other areas to monitor and communicate site conditions.

Web Servers
The *OCC* monitors the web servers using tools and verifying page views. This is accomplished by on demand and scheduled activities as well as monitoring tools reporting facilities.
- On demand *OCC* makes sure pages are being served from a server.
- On a defined schedule look at ever machine (Appendix 1 – Web Server Monitoring Schedule)
- Reporting tools (Resonate, ResonateR, Necropulse, and WhatsUp Gold) monitor web servers and perform automated load balancing and/or monitoring. Automatic paging,

NetOps mail box and monitored alias mailbox notifications are triggered whenever site measurements exceed the predetermined threshold.

Content Replication

Content replication to all servers is reactively monitored when problems are reported by *Technical Support*. The *OCC* will verify the image on the master server then systemically check tiers within the server farm to determine the segment or part of farm not being updated (broken images). Once the scope of the issue is determined content replication to the identified segment or part of the farm will be executed. **(HOW IS THIS DONE?)**

Content Feeds

The *OCC* and *Technical Support* causally surfs the site to monitor feed content for freshness (i.e., current date). The *Content* function in *Product* also in monitors feeds both in conjunction with their content changes and as part of ensuring site currency.

Content Feed issues are addressed either proactively or reactively. Proactively, the *OCC* monitors feed vendors for connectivity; except those using satellite communications. Reactively, internal and external customers monitor feeds and notify *Technical Support* when failures occur. In many instances content partners notify their *Account Representative* who notifies *Technical Support* or *OCC*.

Databases

A tool that parses logs and uses scripts to identify errors and CPU performance conditions performs database monitoring. *OCC* views the identified data to determine if intervention is necessary. Specific areas are monitored at a five-minute delay, they are:
- database connections
- replication queues

Database Administrators (DBA) manually monitor databases keys, extents, table space growth (size and physical space) ensuring timely intervention and maintenance.

Mail (SMTP)

OCC monitors the service and audits the ports using WhatsUp Gold.

Site Resources

Site resources are the collective of customer e-mail, web mail, Visto, Koz, Delphi, Stockpoint, and others. WhatsUp Gold is configured to "ping" the resource's web site. Failures are reported via page and email to both NetOps and specified alias mailboxes.

Site resources are also self monitored by the service. E-mail notifications are sent to NetOps when site resource issues are identified.

Chat

OCC monitor port 80 (HTTP ping) to see if active. Users also e-mail *Technical Support* when issues or failures occur. Receipt user notification is generally delayed notification. OCC verifies port 80 active when ever an issue or failure is reported.

Hosting

NaviSite provides network monitoring and port mirroring sniffer monitoring of the production and beta servers. Issues or failures above the server threshold are reported to the *OCC*.

Release Engineering

The *OCC* turns off and on access to areas of the server farm for *Release Engineering* when a push is being executed. *OCC* coordinates with *Quality Assurance* to determine on how a push will impact the site. Also, **QUALITY FUNCTION** and **EMERGENCY PUSH PROCEDURES** provide the process that the *OCC, Release Engineering and Quality Assurance* follow prior to and immediately after an emergency push. The *OCC* may delay a release due to current traffic and/or active incident under problem management control.

Systems Engineering

Provides with *OCC* with support for *System Engineering* developed tools to ensure optimal use in day-to-day operations monitoring.

Configuration Management

Configuration Management addresses the setup of the platform, network and software components for a release. It also addresses the controlled change and update of the development, QA, FOA/Beta, staging and production environments.

Technical Support

We respond to customer report site issues and damage control.

Notification rules and process

OCC HANDBOOK SCENARIOS AND ESCALATION PROCEDURES
-   Objective
-   How used?
-   How maintained?

NETOPS MAIL ACCOUNT
-   HR / employment
-   Customer Service
-   Ops related Mail

DETERMINITION OF MONITORING THRESHOLDS

FORMS

EXCEPTIONS

- None identified at this time

AFFECTED/RELATED PROCEDURES

- None identified at this time

TOOLS/SOFTWARE/TECHNOLOGY USED

- **Resonate**. Resonate is the load-balancing application that is used to direct traffic across the 45 production web servers. OCC personnel monitor traffic and troubleshoot across all servers.
- **ResonatoR.** ResonatoR is an in-house developed application that runs on the webservers and tests for ASP queue, web log occurrences and database connections. ResonatoR is integrated with Resonate and has internal logic that automatically detects and resolves errors depending on severity, including rebooting or disabling webservers. OCC personnel also use ResonatoR to put a web server in maintenance mode when operations is troubleshooting or applying a fix.
- **Necropulse.** Necropulse is an in-house developed application that reports performance statistics for each production webserver and database node. Necropulse reports the number of web server connections, sessions, requests per second, requests executing, requests queued, webserver uptime, current number of anonymous users, webserver CPU and database CPU.
- **WhatsUp Gold.** WhatsUp Gold monitors all systems and partner sites. When a site or machine goes down, the software sends an email or page to the correct person. It also servers a color visual alert system on a web page
- **Nextel pager.** OCC staff receive all alert pages sent out by WhatsUp Gold and ResonatoR.
- **Main Operations web page--http://ops.SDLC.com.** This site combines links for all the Ops tools for one point access. It also contains vital Operations personnel contact information.

Monitoring the dashboard tools (**Resonate)** automatic load balancing/monitoring system – automated paging NetOps mail box and Monitor alias mailbox (distribution list)
Whats up gold – monitors http, NT services (10 to 12 metrics)

APPENDIX

- Appendix 1 – Web Server Monitoring Schedule

Site content is defined as inclusive of content, ad servicing (Net Gravity) and objects (Accipiter). Objects impact the front door to the site and site perfromance
Ad Servicing
Net Gravity

Objects (Accipiter)– impact front door and servers performance